

Recycled PLA (rPLA) available! rPLA retains the same quality as virgin PLA, creating an opportunity for a closed-loop system

# Luminy<sup>®</sup> PLA for fiber applications

## **Bioplastics product profile**

The leading sustainable sneaker companies use Luminy<sup>®</sup> PLA for many parts of their shoes. Since recycled PLA retains the quality of virgin, companies are also using PLA to create closed-loop systems.

Sneaker production accounts for an estimated 1.4% of global greenhouse gas emissions.\* Replacing non-biobased options with PLA can increase these fiber products sustainability.

\* From a study by Quantis titled, "Measuring Fashion: Insights from the Environmental Impact of the Global Apparel and Footwear Industries".

## The premium functionality of PLA

- Durability and comfort on par with non-biobased options, like PET.
- Low odor retention when compared to PET-based fabrics.
- Fast drying with good wicking ability, which makes for an end product with breathability.
- Easy to disperse or direct dye using conventional processes.

Looking for high-performance eco-friendly solutions for your fiber applications? Scan here to get in touch!



pla@totalenergies-corbion.com







## **Plant the future** with Luminy<sup>®</sup> PLA

Bioplastics made from sugarcane



Luminy<sup>®</sup> PLA bioplastics are 100% biobased, meaning they are completely made from annually renewable and responsibly grown sugarcane plants.

## Why sugarcane?

#### Feedstock efficiency

Sugarcane is 2.5-3 times more efficient in producing PLA when compared to other feedstocks like corn and bagasse.

#### Minimal land use

If all fossil-based plastics currently produced were to become PLA made from sugarcane, it would require just 1.23% of the global agricultural land.

### CO, capture

Sugarcane crop captures 1.83 kg of CO<sub>2</sub> for every kilogram of PLA produced. Luminy® PLA total production captures the equivalent to 16,000 cars worth of CO<sub>2</sub> annually.\*

\* average CO<sub>2</sub> emissions per vehicle by the US Environmental Protection Agency.

Luminy<sup>®</sup> PLA bioplastics have a

75% lower carbon footprint\*

\*Luminy® PLA bioplastics have a carbon footprint

75% lower than traditional fossil-based plastics when biogenic carbon is taken into account.



How PLA is made





**Green House** Gas capture

Sugarcane

Raw sugar

Lactic acid

PLA product application